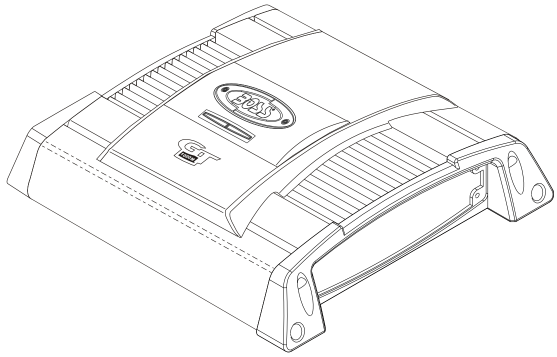
AUDIO SYSTEMS

Service Manual



MODEL: GT2500D

SPECIFICATIONS

Maximum power output (2 Ohms): 1500W x 1ch
RMS power Output: 900W x 1ch
Bridged Power Output: 2500W x 1ch
Frequency response: 50 - 150Hz
S/N Ratio: 100dB
Low Pass Crossover (Variable) 50Hz-150Hz
Power Source Voltage: 14.4V
Ground: Negative
External dimensions: 236(W)x55(H)x318(D)mm

To engineers in charge of repair or inspection of our products.

Before repair or inspection, make sure to follow the instructions so that customers and Engineers in charge of repair or inspection can avoid suffering any risk or injury.

1. Use specified parts.
The system uses parts with special safety features against fire and voltage. Use only parts with equivalent characteristics when replacing them. The use of unspecified parts shall be regarded as remodeling for which we shall not be liable. The onus of product liability (PL) shall not be our responsibility in cases where an accident or failure is as a result of unspecified parts being used.

2. Place the parts and wiring back in their original positions after replacement or re-wiring. For proper circuit construction, use of insulation tubes, bonding, gaps to PCB, etc, is involved. The wiring connection and routing to the PWB are specially planned using clamps to keep away from heated and high voltage parts. Ensure that they are placed back in their original positions after repair or inspection. If extended damage is caused due to negligence during repair, the legal responsibility shall be with the repairing company.

3. Check for safety after repair. Check that the screws, parts and wires are put back securely in their original position after repair. Ensure for safety reasons there is no possibility of secondary ploblems around the repaired spots. If extended damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.

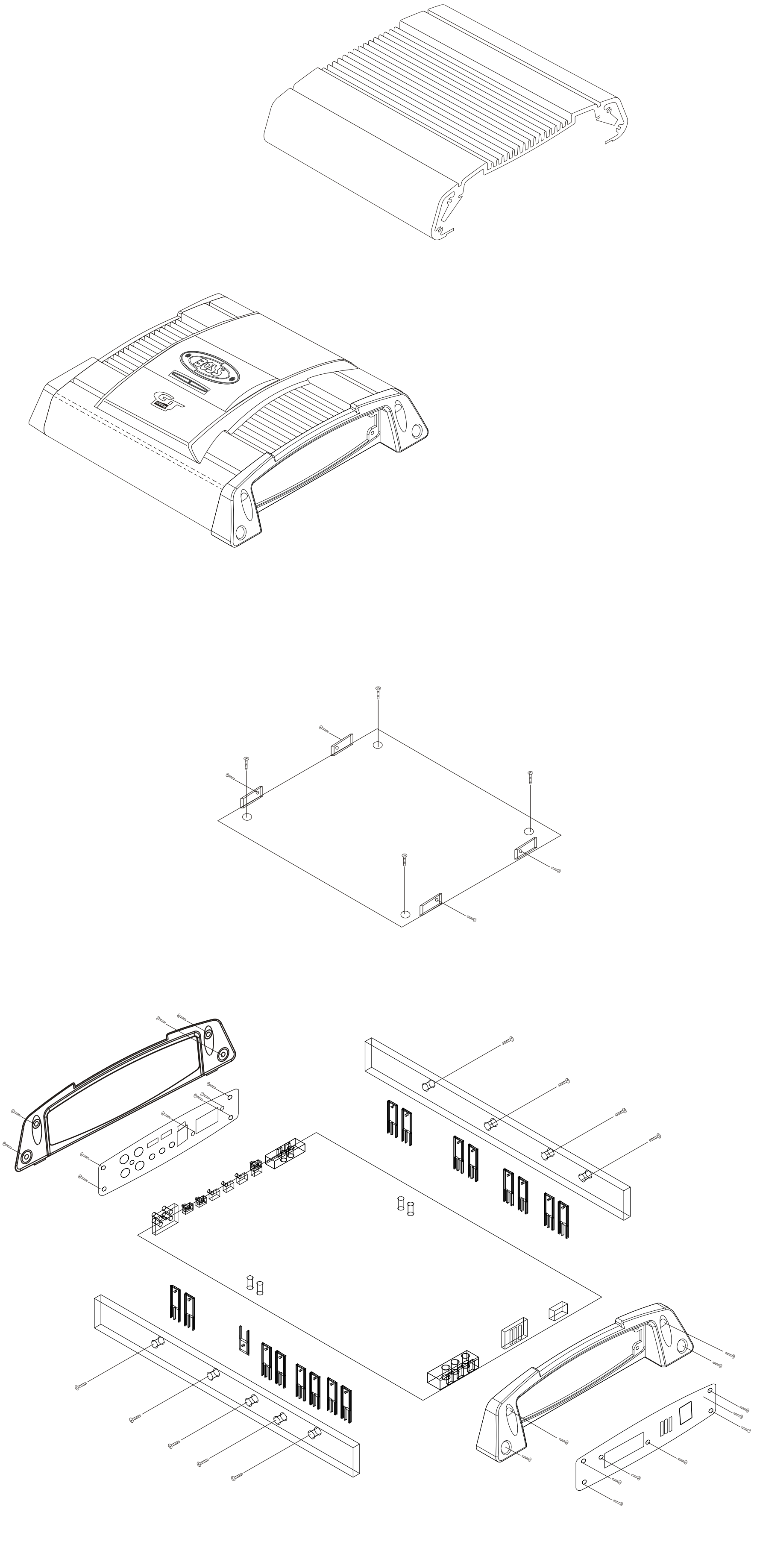
4. Caution in removal and making wiring connection to the parts for the automobile. Disconnect the battery terminal after turning the ignition key off. If wrong wiring connections are made with the battery connected, a short circuit and/or fire may occur. If extensive damage is caused due to negligence of repair, the legal responsibility shall be with the repairing company.

5. Cautions regarding chips.
Do not reuse removed chips even when no abnormality is observed in their appearance. Always replace them with new ones. (The chip parts include resistors, capacitors, diodes, transistors, etc). The negative pole of tantalum capacitors is highly susceptible to heat, so use special care when replacing them and check the operation afterwards.

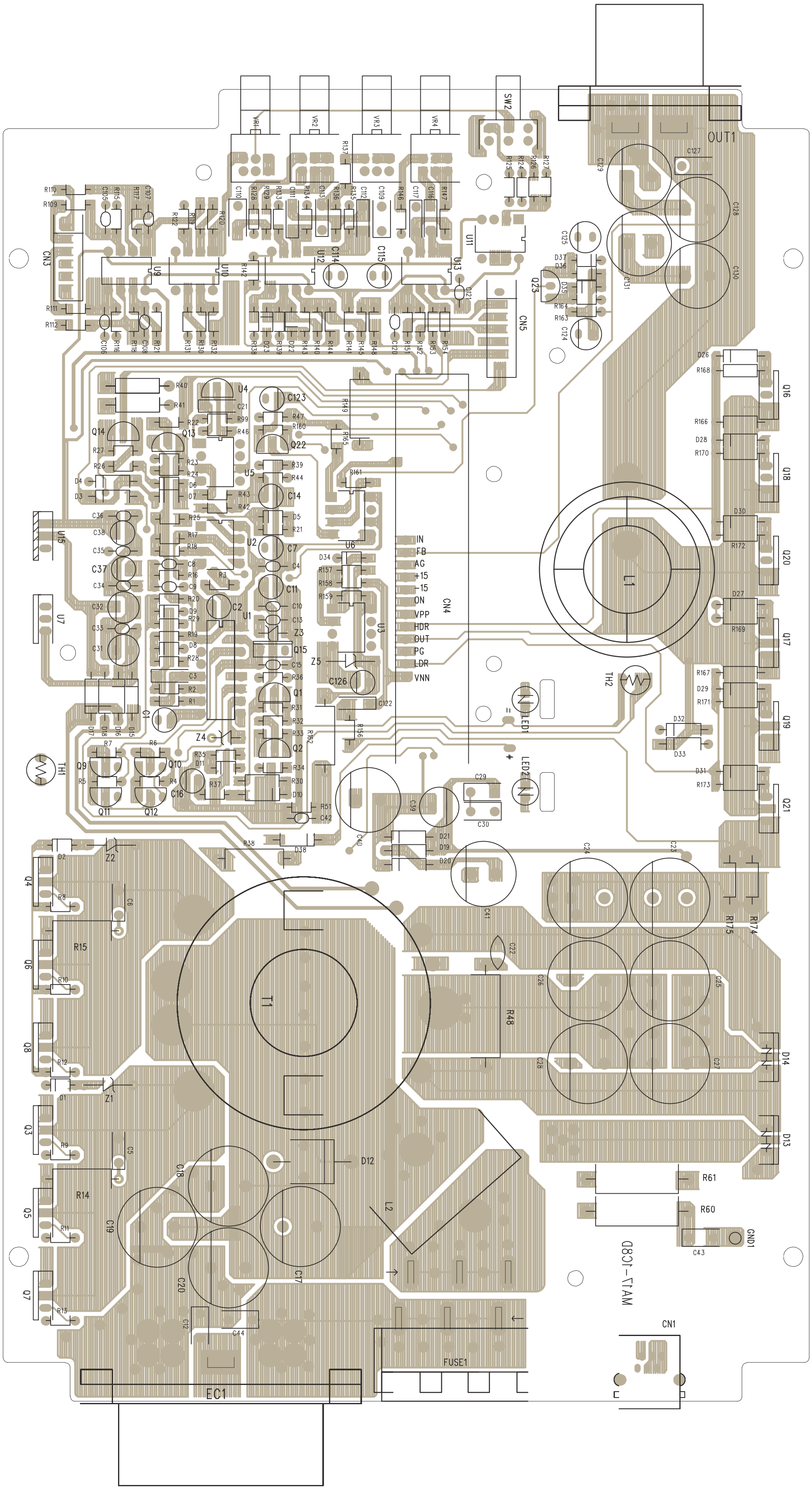
6. Cautions in handling flexible PCB
Before working with a soldering iron, make sure that the iron tip temperature is around 270... Take care not to apply the iron tip repeatedly(more than three times) to the same patterns. Also take care not to apply the tip with force.

7. Turn the unit OFF during disassembly and parts replacement. Recheck all work before you apply power to the unit.

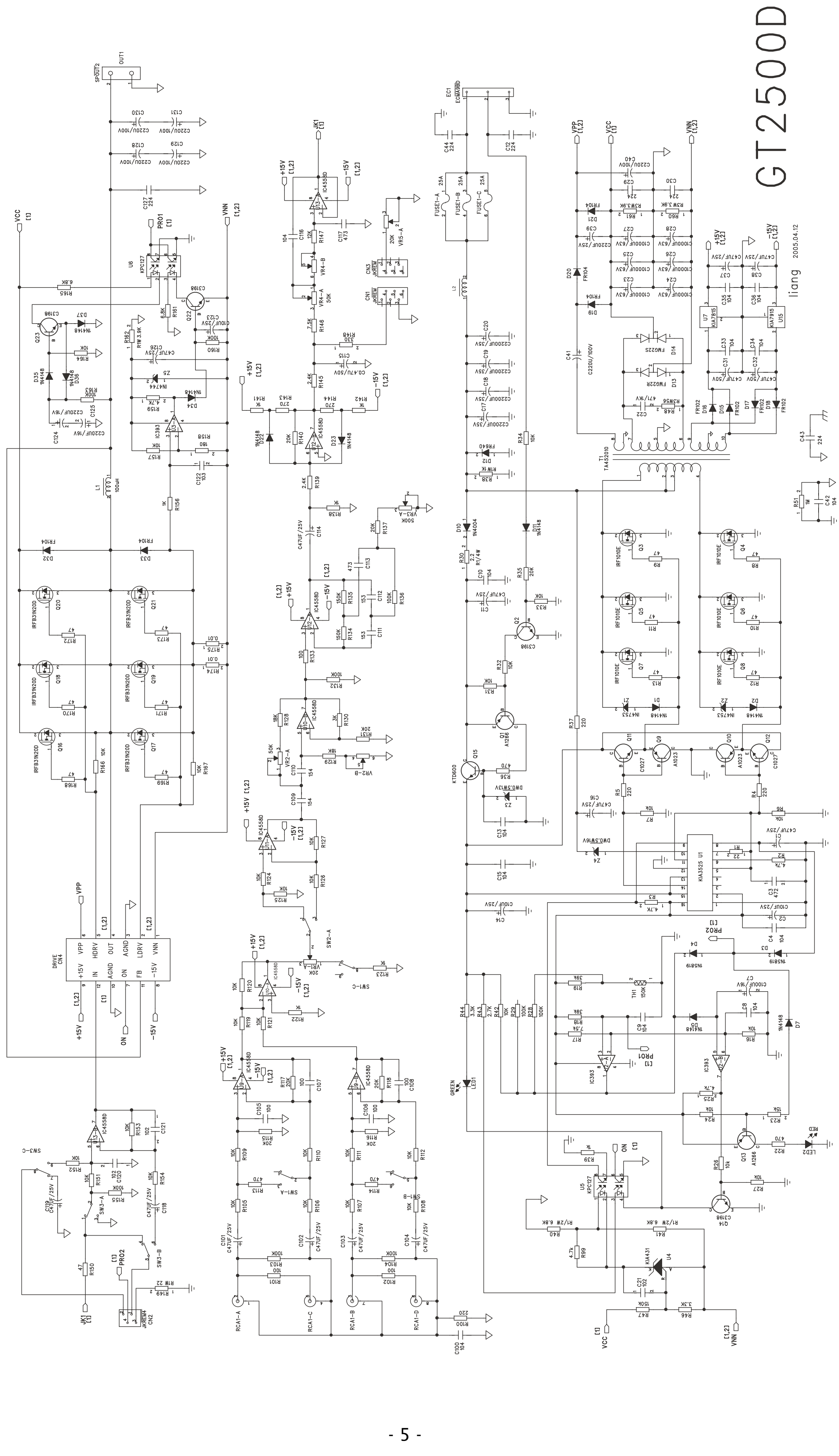
EXPLODED VIEW



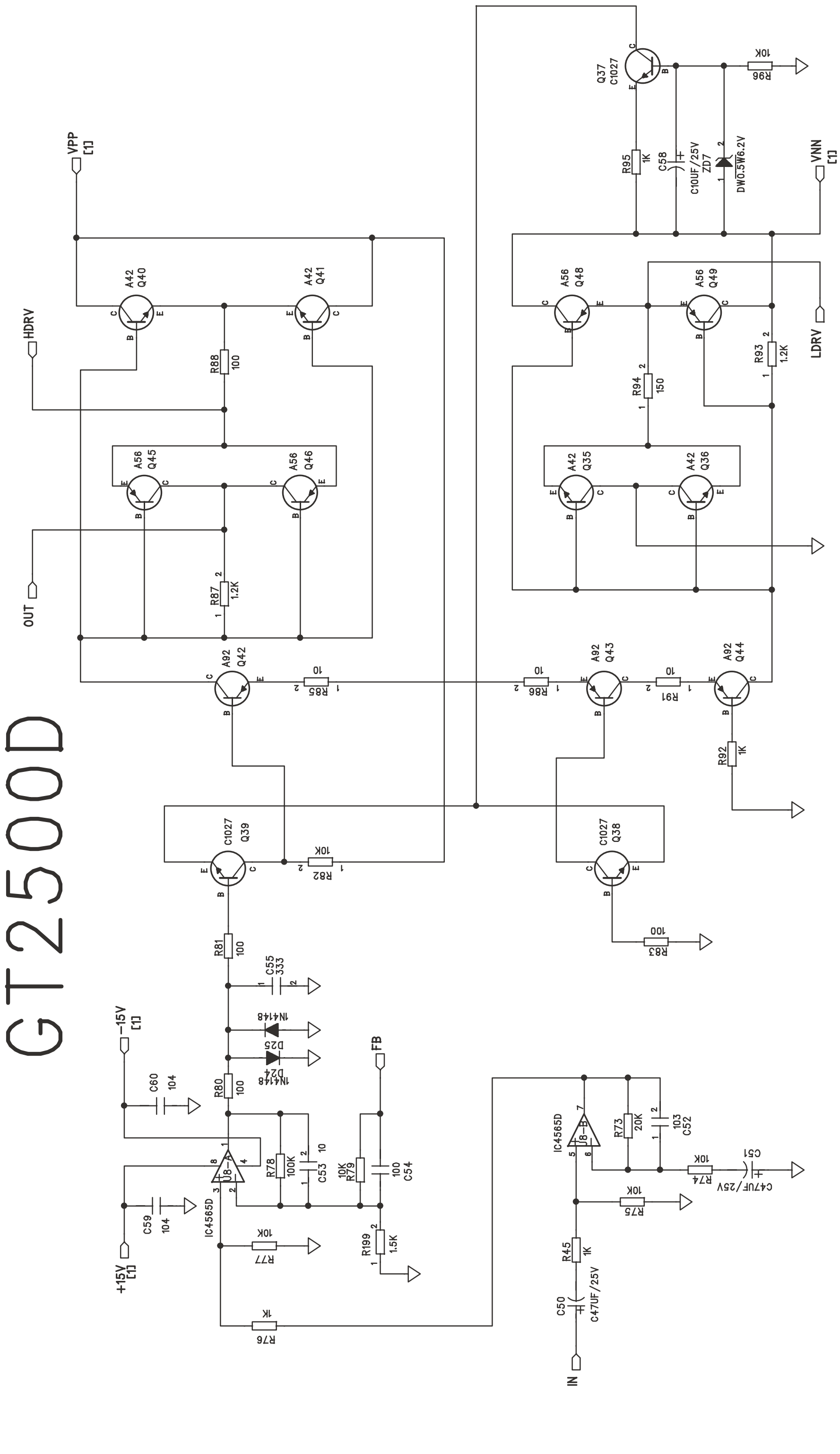
PRINTED CIRCUIT BOARD - 1



CIRCUIT DIAGRAM 1



CIRCUIT DIAGRAM 2



PARTS LIST - 1

Part Number	desc	Location	qty
CR-40091X0-VOS00	RCA Jack	RCA1	1
CT-SOCKET0-2MA17	Speaker Terminal		1
CT-SOCKET0-3MA17	Power Terminal		1
EC-B4102X0-Z2675	Box type Cap 102J	C21	1
EC-B4103X0-Z2675	Box type Cap 103J	C52,122	2
EC-B4104X0-Z2675	Box type Cap 104J	C116	1
EC-B4153X0-Z2675	Box type Cap 153J	C111,112	2
EC-B4154X0-Z2675	Box type Cap 154J	C109,110	2
EC-B4224X0-Z2675	Box type Cap 224J	C12,29,30,43,44,127	6
EC-B4333X0-Z2675	Box type Cap 333J	C55	1
EC-B4472X0-Z2675	Box type Cap 472J	C3	1
EC-B4473X0-Z2675	Box type Cap 473J	C5,6,113,117	4
EC-CX471X0-J60B6	C Cap 470PF/1KV	C22	1
EC-E2107X0-M50A1	E Cap 100UF/16	C7	1
EC-E2227X0-M63A1	E Cap 220UF/16	C124,125	2
EC-E3106X0-M50A1	E Cap 10UF/25V	C2,14,56,58,123	5
EC-E3227X0-M80A3	E Cap 220UF/25	C39	1
EC-E3476X0-M50A1	E Cap 47UF/25	C1,11,16,37,38,50,51,101~104,114,118,119,126	15
EC-E4474X0-M50A1	E Cap 0.47/50V	C115	1
EC-E4476X0-M50A1	E Cap 47UF/50V	C31,32	2
EC-E6228X0-MA3B5	E Cap 2200/35V	C17~20	4
EC-E7108X0-MA6B6	E Cap 1000/63V	C23~28	6
EC-EA227X0-MA3B5	E Cap 220UF/100V	C40,41,128~131	6
EC-R4102T0-K1435	Tubular Cap 102K	C120,121	2
EC-R4104T0-Z1435	Tubular Cap 104K	C4,8~10,13,15,33~36,42,59,60,100	14
EC-R5100X0-J1435	Tubular Cap 10P	C53	1
EC-R5101X0-Z1435	Tubular Cap 100P	C54,105~108	5
ED-R4004X0-H0000	Diode IN-4004	D10,38	2
ED-R5819X0-H0000	Diode 1N5819	D3,4	2
ED-RFMG22R-H0000	Diode FMG22R	D13	1
ED-RFMG22S-H0000	Diode FMG22S	D14	1
ED-RFR1020-H0000	Diode FR102	D15~18	4
ED-RFR1040-H0000	Diode FR104	D19~21,32,33	5
ED-RFR6040-H0000	Diode FR604	D12	1
ED-S4148X0-H0000	Diode IN-4148	D1,2,5~9,11,22~31,34~37	22

PARTS LIST - 2

Part Number	desc	Location	qty
ED-Z06V2X0-H0500	Diode 6.2V 0.5W	ZD6	1
ED-Z13V0X0-H0500	Diode 13V 0.5W	Z3	1
ED-Z15VXX0-H4744	ZENER IN4744	Z5	1
ED-Z16V0X0-H0500	Diode 16V 0.5W	Z4	1
ED-Z4753X0-H1000	Diode 1N4753-36V	Z1,2	2
EE-R225X70-76002	LED Red 2.5X7MM		1
EE-R525X70-76002	LED Green 2.5X7MM		1
EF-COCOAX0-XXXXX	Fan 30X30X10		1
EO-C9B1B0D-V00C3	Choke coil	L1	1
EO-CMA5480-H0027	coil	L2	1
EO-I9B1C8D-VXXXA	Transformer	T1	1
ER-HG153X0-HXXXX	THERMISTOR 150K	TH12	2
ER-MG103X0-H1214	Resistor 10K 1/8W	R157	1
ER-MG181X0-H1214	Resistor 180 OHM 1/8W	R158	1
ER-MG392X0-HC0XX	Resistor 3.9K 3W	R60,61	2
ER-MG560X0-HC0XX	Resistor 56 3W	R48	1
ER-OG022X0-H2526	Resistor 2.2 1/4W	R30	1
ER-OG100X0-H1214	Resistor 10 1/8W	R85,86,91	3
ER-OG100X0-HA04C	Resistor 10 1W	R14,15	2
ER-OG101X0-H1214	Resistor 100 1/8W	R80,81,83,88,101,102,133	7
ER-OG102X0-H1214	Resistor 1K 1/8W	R45,76,92,95,122,123,138,141,142,156,39	11
ER-OG102X0-HA04C	Resistor 1K 1W	R38	1
ER-OG103X0-H1214	Resistor 10K 1/8W	R31~34,42,74,75,77,79,89,96,105~112,119~121,124~127,	40
		151~154,164,166,167,6,7,16,24,26,27,20	
ER-OG104X0-H1214	Resistor 100K 1/8W	R28,29,78,103,104,132,136,155,160,163	10
ER-OG105X0-H1214	Resistor 1M 1/8W	R51	1
ER-OG122X0-H1214	Resistor 1.2K 1/8W	R87,93	2
ER-OG123X0-H1214	Resistor 12K 1/8W	R147	1
ER-OG151X0-H1214	Resistor 150 1/8W	R94	1
ER-OG152X0-H1214	Resistor 1.5K 1/8W	R199	1
ER-OG153X0-H1214	Resistor 15K 1/8W	R23	1
ER-OG154X0-H1214	Resistor 150K 1/8W	R47,134,135	3
ER-OG183X0-H1214	Resistor 18K 1/8W	R128,129	2
ER-OG203X0-H1214	Resistor 20K 1/8W	R35,73,115~118,131,137,140	9
ER-OG220X0-H1214	Resistor 22 1/8W	R1	1

PARTS LIST - 3

Part Number	desc	Location	qty
ER-OG220X0-HA04C	Resistor 22 1W	R149	1
ER-OG221X0-H1214	Resistor 220 1/8W	R4,5,37,50,100	5
ER-OG222X0-H1214	Resistor 2.2K 1/8W	R44	1
ER-OG224X0-H1214	Resistor 220K 1/8W	R21	1
ER-OG242X0-H1214	Resistor 2.4K 1/8W	R139,145	2
ER-OG271X0-H1214	Resistor 270 1/8W	R143,144	2
ER-OG272X0-H1214	Resistor 2.7K 1/8W	R43	1
ER-OG302X0-H1214	Resistor 3K 1/8W	R130	1
ER-OG331X0-H1214	Resistor 330 1/8W	R148	1
ER-OG332X0-H1214	Resistor 3.3K 1/8W	R46	1
ER-OG392X0-HA04C	Resistor 3.9K 1W	R162	1
ER-OG393X0-H1214	Resistor 39K 1/8W	R18,19	2
ER-OG470X0-H1214	Resistor 47 1/8W	R8-13,150,168~173	13
ER-OG471X0-H1214	Resistor 470 1/8W	R22,36,113,114	4
ER-OG472X0-H1214	Resistor 4.7K 1/8W	R3,159,2,99,25	5
ER-OG473X0-H1214	Resistor 47K 1/8W	R90	1
ER-OG561X0-H1214	Resistor 560 1/8W	R82,84	2
ER-OG682X0-H1214	Resistor 6.8K 1/8W	R161,165	2
ER-OG682X0-H5039	Resistor 6.8K 1/2W	R40,41	2
ER-OG752X0-H1214	Resistor 7.5K 1/8W	R146,17	2
ER-R0000X0-15XXX	Resistor (10MK)	R174,175	2
ES-S2219X0-H0006	Switch JSS2219)	SW2	2
ES-S42F010-H0016	Switch SK42F01	SW1,SW3	2
ET-B31N20D-X0000	Mosfet IRFB31N20D	Q16~21	6
ET-C1023X0-PY000	Transistor KTA1023-Y	Q9,10,47	3
ET-C1027X0-NY000	Transistor KTC1027-Y	Q11,12,37~39	5
ET-C1266X0-PY000	Transistor A1266Y	Q1,13	2
ET-C3198K0-NY000	Transistor KTC3198-Y	Q2,14,22,23	4
ET-CA42XX0-N0000	Transistor MPSA42	Q35,36,40,41	4
ET-CA56XX0-P0000	Transistor MPSA56-AT	Q45,46,48,49	4
ET-CA92XX0-P0000	Transistor MPSA92	Q42~44	3
ET-CD600X0-N0000	Transistor KTD600-KY	Q15	1
ET-FF1010N-N0000	Mosfet IRF1010N	Q3~8	6
ET-KIA431A-X0000	Transistor KIA431A-AT	U4	1
EW-CS05XX0-05AA0	Bare Wire 5MM	J4	1

PARTS LIST - 4

Part Number	desc	Location	qty
EW-CS06XX0-05AA0	Bare Wire 6MM	J1,2,3	3
EW-CS10XX0-05AA0	Bare Wire 10MM	J5	1
II-3525AX0-V0016	IC SG3525AN	U1	1
II-393XXX0-H0008	IC KIA-393P	U2,3	2
II-45580B0-V0008	IC JRC-4558D	U9~13	5
II-4565DX0-H0008	IC JRC-4565D	U8	1
II-521-2X0-H0008	Bare Wire TLP521-2	U5,6	2
II-78150X0-V0003	IC KA7815TU	U7	1
II-79150X0-V0003	IC KA7915-TU	U15	1
VR-BN203X1-H0A26	VR 20KBX2	VR1	1
VR-BN503X0-V0A26	VR 50KB T12	VR2,4	2
VR-BN504X0-V0A26	VR 500KB T12	VR3	1